



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 18 2005

OFFICE OF
GENERAL COUNSEL

SETTLEMENT CONFIDENTIAL

Thomas A. Campbell, Esquire
Pillsbury Winthrop Shaw Pittman LLP
2 Houston Center
909 Fannin Street, 22nd Floor
Houston, Texas 77010

Re: Upper Columbia Human Health RI/FS Cashout

Dear Tom:

Enclosed for your review and consideration in advance of our October 20, 2005 meeting is the United States Environmental Protection Agency's ("EPA's") cost estimate for completing a Human Health Remedial Investigation/ Feasibility Study ("HH RI/FS") of the Upper Columbia River (from the Grand Coulee Dam north to the Canadian border). Also enclosed is a draft settlement agreement that would effectuate a cashout of Teck Cominco Ltd. ("Teck Cominco's") from liability with respect to the HH RI/FS.

Based on a comprehensive analysis of both direct and indirect costs, EPA currently estimates that the HH RI/FS will cost \$49,135,000 (including an uncertainty contingency of \$7,725,000), in addition to the \$9,507,000 in past costs, to complete. Consistent with EPA's normal practice, approximately \$9.5 million of that estimate constitutes estimated indirect RI/FS costs, calculated at 30 percent of future costs. The United States is prepared to forgo 50 percent of its indirect costs, *i.e.*, \$4,755,000., for purposes of reaching a settlement. Therefore, factoring in this reduction, the United States proposes to cash out Teck Cominco for all prospective HH RI/FS liability for \$44,380,000.

EPA's past cost figure of \$9,507,000 is uncertified. It is our experience that our uncertified past cost summaries tend to undervalue the Agency's actual costs. Nevertheless, we are prepared to negotiate this number now. Alternatively, we can defer discussion of EPA's past cost until such a number can be certified formally. We can discuss this issue at our meeting.



Given the extent and complexities of the Site, we believe our estimate reflects a reasonable and mid-range approach for completing a scientifically-sound RI/FS that all parties should desire. We look forward to discussing this with you in greater detail on Thursday.

Sincerely,



Chet Thompson
Associate Deputy General Counsel

Enclosures

cc: Ann R. Klee
Granta Y. Nakayama
Michael Bogert
Tom Dunne
Doug Horswill
Donald R. Michel
Jay J. Manning
Gerald Nicodemus
Matt McKeown
John Cruden
Richard DuBey
Shannon Work
Alex Smith

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10/18/2005

Upper Columbia River Projected Human Health RI/FS Costs

Assumptions

Four more years needed to complete study

Conceptual Site Model is accurate

Moderate amount of certainty needed for risk assessment and

Remedial Design will require some data collection and analysis

Costs based on best professional judgement of EPA and CH2

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Notes for the Human Health RI/FS Cost Estimate

1. Sediments:

Cost for planning and implementing the sediment investigation. Assumption covers 3 to 4 rounds of sampling building on the findings from the previous investigation/s.

The Phase 1 sampling included sampling transects at 1 and 3 mile intervals, sampling tributary mouths, taking composites from 12 beaches, taking individual samples from 3 beaches, and collecting 13 subsurface cores.

Additional characterization needs for sediments:

- Determine nature and extent of contamination.

- Characterize additional beach areas if results of first round samples determine potential for excess risk and/or significant heterogeneity is seen on beaches.

- Characterize suspended sediment concentrations to determine metals transport.

- Delineate areas exceeding risk based levels (contact, bioaccumulation values, benthic risk, leaching exceeding water quality standards, etc).

- Characterize additional subsurface sediments if data indicate that they may become exposed, or impact fate and transport.

- Support screening of remedial alternatives.

- Determine potential for movement/redistribution of contamination.

2. Fish:

Costs for planning and implementing the fish investigation. Costs based on 3 rounds of fish tissue sampling using subsequent data to help determine additional needs.

The Phase 1 sampling (ongoing) includes sampling 5 different fish species at 6 different locations. Approximately 1000 fish will be taken and composited for sampling.

Additional characterization needs for fish:

- Additional sampling needed for risk assessment if extrapolation/interpolation from surrounding areas is not statistically valid.

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Data needed to discriminate areas of high fish contamination compared to adjacent areas.

Determine variation (low to high) in fish species.

Sampling additional species if "market basket" and concentrations indicate that there may be risks from other species (i.e. freshwater crustaceans).

3. Bathymetric survey:

Cost for bathymetric survey of the project area. Currently the only available data are 50 years old. A new survey is needed for sediment fate and transport, determination of potential remedies, potential for natural attenuation, etc.

4. Additional Human Health RI investigations:

In addition to fish and sediment, characterization of other media is needed for the Human Health RI/FS. The cost estimate is based on the need for the following additional studies:

Sampling biota will need to be conducted if modeling approaches in the baseline risk assessment indicate that these may be significant risk contributors. Direct sampling can either confirm risk, or show that using literature values overestimated the risk.

Characterization of surface water is needed to determine human health risks, and as input for fate and transport calculations.

Ambient air sampling will be conducted if sediment data and meteorological data are insufficient to characterize ambient air with respect to risk assessment.

Surface soil (near bank/uplands) will be investigated if sediment concentrations present evidence that surface soil may pose unacceptable risk via ingestion/dermal exposure.

Localized shallow groundwater will be investigated if there is evidence which suggests that groundwater through direct exposure or plant uptake might lead to health risks, or if there are nearby wells which might be impacted.

USGS investigations indicate that sediment pore water concentrations may significantly differ from ambient water quality. This may impact water quality and human health risk calculations and an understanding of metal movement through the system.

USGS investigations have shown slag degradation. The potential ongoing releases of metals as slag degrades may need to be investigated.

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5. Modeling:

Cost of modeling is a mid-range estimate based on a range of potentially required site modeling. Modeling program will be developed based on the results of the data, and the range of potential remedies. Modeling may include hydrodynamic modeling, sediment/chemical fate and transport, and food web interactions.

6. Treatability Studies:

Potential remedial options which may need to be investigated include bank slumping as a source of sediment input to the system, mining slag, enhanced natural attenuation, sediment stabilization (chemical and physical).

7. Contractor Costs Spent to Date:

This amount is part of the past cost summary.

8. Analytical Costs:

These costs include both the contract lab program (CLP) costs, and also special analytical services costs. CLP costs are not normally shown in project planning costs because they are paid from a separate budget. Special analytical services costs are high for this project because of the need for sampling dioxin and PCB congeners, performing bioassays, and potentially performing metal speciation.

9. Cooperative Agreement Costs:

Amount based on actuals for 2005. Estimate assumes contractor costs and personnel costs.

10. Uncertainty Contingency:

Consistent with common practice, a 25% contingency has been added based on the uncertainty of cost estimates, especially when prepared for a site as complex as this one.

11. Indirect Costs:

Indirect costs are added to expenses when cost packages are prepared for cost recovery. They are assessed on all expenditures.

12. Past Costs:

This past cost estimate is based on EPA's uncertified cost summary.

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24. In any subsequent administrative or judicial proceeding initiated by EPA or by the United States for injunctive relief, recovery of response costs, natural resource damages, or other relief relating to the Site, Settling Parties shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, *res judicata*, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by EPA, or the United States on behalf of EPA, in the subsequent proceeding were or should have been brought in the instant case; provided, however, that nothing in this Paragraph affects the enforceability of the Covenants by the United States set forth in Section VIII.

IX. ACCESS TO INFORMATION

25. Settling Parties shall provide to EPA, upon request, copies of all records, reports, or information (hereinafter referred to as "records") within their possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Agreement, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information related to the Site.

26. Confidential Business Information and Privileged Documents.

a. Settling Parties may assert business confidentiality claims covering part or all of the records submitted to EPA under this Agreement to the extent permitted by and in accordance with Section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7), and 40 C.F.R. 2.203(b). Records determined to be confidential by EPA will be accorded the protection specified in 40 C.F.R. Part 2, Subpart B. If no claim of confidentiality accompanies records when they are submitted to EPA, or if EPA has notified Settling Parties that the records are not confidential under the standards of Section 104(e)(7) of CERCLA or 40 C.F.R. Part 2 Subpart B, the public may be given access to such documents or information without further notice to Settling Parties.

b. Settling Parties may assert that certain records are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Settling Parties assert such a privilege in lieu of providing records, they shall provide EPA with the following: 1) the title of the record; 2) the date of the record; 3) the name, title, affiliation (*e.g.*, company or firm), and address of the author of the record; 4) the name and title of each addressee and recipient; 5) a description of the subject of the record; and 6) the privilege asserted. If a claim of privilege applies only to a portion of a record, the record shall be provided to EPA in redacted form to mask the privileged portion only. Settling Parties shall retain all records that they claim to be privileged until EPA has had a reasonable opportunity to dispute the privilege claim and any such dispute has been resolved in the Settling Parties' favor. However, no records created or

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generated pursuant to the requirements of this or any other settlement with the EPA pertaining to the Site shall be withheld on the grounds that they are privileged.

27. No claim of confidentiality or privilege shall be made with respect to any data, including but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, or engineering data, or any other documents or information to the extent they evidence conditions at or around the Site.

28. Each Settling Party hereby certifies individually that, to the best of its knowledge and belief, after thorough inquiry, it has not altered, mutilated, discarded, destroyed or otherwise disposed of any records, reports, or information relating to its potential liability regarding the Site, since notification of potential liability by the United States or the State or the filing of a suit against it regarding the Site and that it has fully complied with any and all EPA requests for information regarding the Site pursuant to Sections 104(e) and 122(e) of CERCLA, 42 U.S.C. §§ 9604(e) and 9622(e), and Section 3007 of RCRA, 42 U.S.C. § 6927.

X. RETENTION OF RECORDS

29. Until 10 years after the effective date of this Agreement, each Settling Party shall preserve and retain all records now in its possession or control, or which come into its possession or control, that relate in any manner to the Site or to the liability of any person for response actions or response costs at or in connection with the Site, regardless of any corporate retention policy to the contrary.

30. After the conclusion of the document retention period in the preceding paragraph, Settling Parties shall notify EPA at least 90 days prior to the destruction of any such record, and, upon request by EPA, Settling Parties shall deliver such records to EPA. Settling Parties may assert that certain records are privileged under the attorney-client privilege or any other privilege recognized by federal law. If Settling Parties assert such a privilege, they shall provide EPA with the following: 1) the title of the record; 2) the date of the record; 3) the name, title, affiliation (e.g., company or firm), and address of the author of the record; 4) the name and title of each addressee and recipient; 5) a description of the subject of the record; and 6) the privilege asserted. If a claim of privilege applies only to a portion of a record, the record shall be provided to EPA in redacted form to mask the privileged portion only. Settling Parties shall retain all records that they claim to be privileged until EPA has had a reasonable opportunity to dispute the privilege claim and any such dispute has been resolved in the Settling Parties' favor. However, no records created or generated pursuant to the requirements of this or any other settlement with the EPA pertaining to the Site shall be withheld on the grounds that they are privileged.

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XI. NOTICES AND SUBMISSIONS

31. Whenever, under the terms of this Agreement, notice is required to be given or a document is required to be sent by one Party to another, it shall be directed to the individuals at the addresses specified below, unless those individuals or their successors give notice of a change to the other Parties in writing. Written notice as specified herein shall constitute complete satisfaction of any written notice requirement of this Agreement with respect to the United States, EPA, and Settling Parties.

As to the United States:

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Washington, D.C. 20044-7611
Re: DJ #90-11-2-07883

Director, Environmental Cleanup Office
U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, WA 98101

and EPA Contacts listed below

As to EPA:

Regional Counsel
U.S. EPA Region 10, ORC-158
1200 Sixth Avenue
Seattle, WA 98101

[name]
EPA Project Coordinator
U.S. Environmental Protection Agency, Region 10
1200 Sixth Avenue
Seattle, WA 98101

As to Settling Parties:

[Insert name and address of one person who will serve as the contact for all Settling Parties]

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XII. INTEGRATION/APPENDICES

32. This Agreement and its appendices constitute the final, complete and exclusive Agreement and understanding among the Parties with respect to the settlement embodied in this Agreement. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this Agreement. The following appendices are attached to and incorporated into this Agreement: "Appendix A is _____; etc."

XIII. PUBLIC COMMENT

33. This Agreement shall be subject to public comment for a period of not less than 30 days after publication of notice in the Federal Register consistent with the policy of Section 122(i) of CERCLA, 42 U.S.C. § 9622(i). The United States may modify or withdraw its consent to this Agreement if comments received disclose facts or considerations which indicate that this Agreement is inappropriate, improper, or inadequate.

XIV. EFFECTIVE DATE

34. The effective date of this Agreement shall be the date upon which EPA issues written notice that the public comment period pursuant to Paragraph 33 has closed and that comments received, if any, do not warrant modification of or withdrawal by the United States from this Agreement.

IT IS SO AGREED:

FOR THE UNITED STATES OF AMERICA:

Date: _____

By: _____

[Name]

Assistant Attorney General

Environment and Natural Resources Division

U.S. Department of Justice

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Date: _____ By: _____
Ann Klee
General Counsel
U.S. Environmental Protection Agency

Date: _____ By: _____
Michael Bogert
Regional Administrator, Region X
U.S. Environmental Protection Agency

FOR THE SETTLING PARTIES

Date: _____ By: _____
Name:
Title:
Teck Cominco Metals, Ltd.

Date: _____ By: _____
Name
Title:
Teck Cominco American Incorporated

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<u>Data Evaluation</u>	Sediments	\$1,130,000	
	Fish	\$680,000	
	bathymetry	\$230,000	
	Additional Investigations	\$450,000	
<u>Modeling</u>		\$5,000,000	5
<u>Risk Assessment (human health)</u>		\$2,000,000	
	includes tribal exposure assessment		
<u>RI Report</u>		\$900,000	
<u>Treatability Studies</u>		\$2,000,000	6
<u>FS Report</u>		\$1,600,000	
<u>Post FS</u>	Interim Human Heath ROD respons. summary	\$500,000	
<u>Other Costs</u>	admin record	\$100,000	
	closeout	\$20,000	
Total Contractor Human Health RI/FS Costs		\$27,060,000	
Contractor Costs Spent to date		(\$4,000,000)	7

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Remaining RI/FS Contractor Costs

\$23,060,000

Analytical Costs (labs)

sediments \$1,600,000

fish \$1,000,000

plants/terrestrial \$500,000

surface/porewater/air \$500,000

Total Analytical Costs

8

\$3,600,000

Future EPA Personnel Costs

assume 4 years 3 FTE/year

\$1,600,000

\$1,840,000

travel

\$240,000

Cooperative Agreement Costs

State

\$800,000

9

\$3,200,000

Spokane

\$800,000

Colville

\$800,000

Federal Agencies

\$800,000

F&W

BOR

NPS

ST+TS 2.4 \$/4 yrs each



<u>Cost Category</u>	<u>Activity</u>	<u>Media/other info</u>	<u>Cost</u>	<u>Notes</u>	<u>Category Total</u>
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Human Health RI/FS Direct Costs

Contractor Costs

Project Management

\$900,000

2.7 mil
shld be = 10%

Community Relations Support

\$300,000

includes coord. with Canada

Field Implementation - project plans and implementation

Sediments

\$3,800,000

1

Fish

\$3,250,000

2

900k

bathymetry

\$1,100,000

3

Additional Investigations

\$2,750,000

4

- plants/terrestrials/surface water

- groundwater/porewater/air

- slag properties

Analytical Support/Validation

\$350,000



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Future Direct Human Health RI/FS Costs		\$31,700,000
<u>Human Health RI/FS Contingency</u>	10	<u>\$7,925,000</u>
25% of Future Direct Costs		
<u>Indirect Costs @ 30% future costs</u>	11	<u>\$9,510,000</u>
TOTAL PROSPECTIVE HUMAN HEALTH RI/FS COSTS		<u>\$49,135,000</u>
<u>Past Costs</u>	12	<u>\$9,507,000</u>